

REMARKS/ARGUMENTS

Applicant was required to amend the specification. Claims 1 to 4 were rejected under 35 U.S.C. § 102 (e) as being anticipated by Raines (US 3,525,271). Claims 5 to 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Raines (US 3,525,271).

The specification has been amended.

Reconsideration of the application is respectfully requested.

Specification

The incorporated material is not essential or being relied on at the moment and the citation is being removed from the application without prejudice to future use.

35 U.S.C. 102 Rejections

Claims 1 to 4 were rejected under 35 U.S.C. § 102 (e) as being anticipated by Raines (US 3,525,271).

Raines discloses a segmented gear structure and a manner of securing and removing the gear structure from a shaft.

Gear segments 11, 12 are located on shaft 22, and a key 27 fits in a key-way 28. Key 27 is supported by springs 26 in a recess 13.

Claim 1 recites a shaft-hub connection for transmitting a torque comprising:

a shaft having an axial direction;

a hub; and

at least one driving element for aiding in transmitting the torque between the shaft and the hub;

a minimized contact surface being minimized in the axial direction between at least one of: the shaft and the hub; the shaft and the driving element; and the hub and the driving element, to permit tilting of the hub with respect to the shaft in the axial direction.

The present claim 1 thus recites a physical structure, i.e. a minimized contact surface in an axial direction, permitting tilting of the hub with respect to shaft in the axial direction. Claim 1 has been amended to make clear that the term minimized is not a functional limitation but a structural one.

Raines does not show such a minimized contact surface in an axial direction as per the present invention. In fact, key 27 clearly does not have an axially minimized contact surface, as the bottom surface of key 27 is intentionally not minimized and provides a flat surface for interacting with the keyway. In fact, the key 27 seems to fit tightly in the recess 13 and thus the large axial extent of the key seems designed specifically to prevent axial tilting. This may be so since there is an intentional play or tolerance between the gear segments 11 and 12 and the shaft (See column 2, lines 35 et seq.) to permit axial sliding, and the flat bottom surface of the key 27 interacting with the keyway and the recess 13 thus prevents axial tilting. The Raines key thus actually teaches away from the present invention, where the contact surfaces are minimized with the specific aim of permitting axial tilting.

Withdrawal of the rejection to claims 1 to 4 is respectfully requested.

With further respect to claim 3, claim 3 recites the shaft-hub connection as recited in claim 1 wherein the shaft is convexly shaped on an outside circumference in an area of the hub or is relieved by two chamfers on the outside circumference. The shaft of Raines is not convexly curved, but rather flat and concave. See claim 1 and [0040] of the present specification.

With further respect to claim 4, claim 4 recites the shaft-hub connection as recited in claim 1 wherein the hub is convexly shaped on an inside circumference or is relieved by two chamfers on the inside circumference. The gear segments of Raines do not meet this limitation.

35 U.S.C. 103 Rejections

Claims 5 to 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Raines (US 3,525,271).

In view of the comments with respect to claim 1, withdrawal of the rejection to claims 5 to 20 is respectfully requested.

In addition, it is respectfully submitted that the features of these claims would not have been obvious in view of Raines, nor is there any motivation to so modify Raines as it does not desire axial tilting.

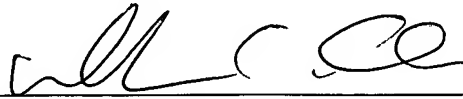
Withdrawn Claims 21 to 24

Reinstatement of withdrawn claims 21 to 24, which depend from claim 1, is respectfully requested.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,
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